

The bodily expression of negation in Polish

Jolanta Antas, Sonia Gembalczyk

Jagiellonian University, Faculty of Polish Studies, Department of Communication Theory

Kraków, ul. Gołębia 20, Poland

pantas@poczta.onet.pl, sonia.gembalczyk@gmail.com

Abstract

The aim of this paper is to examine the bodily expressions of negation in Polish with the use of both audiovisual and syntactic material. The concept of NOT expresses many different degrees of rejection in such areas as belief (*I don't know, I doubt*), judgment (*bad*), emotion (*I don't want*) and action (*I don't do*). We have found a whole range of reactions reflecting negation, including movements of the head, arms, and hands, facial expressions, intonation, and proxemic communication. Multimodal illustrations point to both the polymorphism of the act of negating, and the embodied sources of negation.

1 Introduction

Negation is not only a mental operation, it is also a physical experience of resistance, aversion or rejection. We address the topic of the bodily expression of negation with a view to discovering any sensomotoric sources related to the need to manifest the emotional and mental states of negation (see: Bressem & Müller, 2014, pp.1601-1602). The controversy surrounding Anna Wierzbicka's proposal to place the NOT unit among the NSM (Natural Semantic Metalanguage) units (Żurowski 2005), the so-called semantic primes, clearly indicates that NOT, perceived as a logical operator, is ambiguous. It is not always possible to replace the operator IT IS NOT TRUE THAT with the linguistic NOT. A more thorough research into the linguistic NOT (Antas, 1991) has shown that it expresses not one, but several different states of rejection – in areas such as belief (*I don't know, I doubt*), judgment (*bad*), emotion (*I don't want*) and actions (*Don't do it, I won't do it*). In addition, every act of denial has its own affective tone. Emotional by nature, man is unable to participate in any act of communication without emotions, if only the subtlest ones. As a result negation in its active, pragmatic, multimodal (and not merely textual) form always assumes some emotional “hue”.

While examining different multimodal manifestations of negation, we noticed that:

(1) negation is always accompanied by judgement,

(2) there exists a whole range of reactions expressing negative ideas (such as head or hand gestures, intonation, mimics and proxemic behaviour), which we believe indicates a **multitude of sources** of negation and its expression (mental, emotional, interactive and intrapersonal). In other words, we postulate not only the **polymorphism** of negation itself, but also of the various sources of the need for negation (evoking different image schemata).

2 Material and methods

We have analyzed 350 items of audiovisual material featuring users of the Polish language. These have been selected from many hours of recordings from television programmes (98 hours), public offices (19 hours) and with the participation of students of Polish at the Jagiellonian University (31 hours). More than 150 individuals agreed to have their image published for research purposes. We strived to obtain material based on versatile sources and natural conversation (such as TV

interviews and public office inquiries), rather than just derived from university experiments (communication task). We have grouped negative reactions according to three characteristics: (1) the form of their bodily expression, (2) the intensity of the means of expression and (3) the co-occurrence of repetitive negations occurring on the textual plane. The analyzed expressions are primarily those containing verbal negation (with the use of the particle “not” or other semantic negative markers, such as: *odwrotnie* (Eng. *conversely*), *przeciwnie* (Eng. *on the contrary*), *wcale* (Eng. *not at all*) (Antas 1991, pp. 132-145). All the identified gestures which accompany verbal negation have been included in the corpus, even if they occur as independent nonverbal acts of speech (and thus without accompanying words). Most of the words used in conversation by speakers of the Polish language were of a mixed character, so the meaning of the negative expression was achieved by various semiotic means, multimodally. Therefore, we have grouped the results according to both the verbal and gestural manifestations of negation (sometimes the same statement could be found simultaneously in different groups). Some verbal expressions of negation have been made without any clear nonverbal signals (user refraining from gestures) and these did not enter the corpus. At the present stage of research, we do not deal with the temporal or syntactic relationship between words and non-verbal signals.¹ The interpretations of linguistic expressions may not exactly correspond to the specifics of the English language, but are intended to reflect the ideas embodied in the Polish phrases.

3 Analysis

3.1 Head shake

The primitive “not”, according to Desmond Morris, has its origin in infancy when the baby moves their head away from the mother’s breast in order to signal the end of feeding (Morris, 1977, p. 69). More recent research in ethology confirms the validity of Morris’s observations (e.g. Tanner et al., 2006, p. 76). Similarly, Johnson defends the view that the search for meanings should begin with the analysis of the most primitive bodily movements, e.g. those performed by infants (Johnson, 2015, pp. 51-70). The extent to which we need to use our bodies to express negation in the event of a bodily discomfort is exemplified by the shaking of the head while grunting in response to, say, throat irritation (Fig.1). This is an intrapersonal behaviour which also reveals the bodily source of negation.



Figure 1. Head shake in response to throat irritation (from the collection of the Department of Communication Theory).

Head shake, which expresses rejection in all modal spheres and all possible emotional variations, can be expressed through different gestural variants from single movements to multiple ones intensified through other channels. Kendon emphasizes the multiplicity of contexts of use and the vast semantic possibilities of the head shake. He believes that this gesture: *is used in many*

¹ Gestures which serve as elements of text organization, or in other words, syntactic functions of gestures in the Polish language are described by Antas (2013, pp. 94-97). Unlike Harrison and Larrivé (2016, p. 79), who found that the participants *synchronize the gesture stroke with the negative node (...) with the vocal clausal negator in English*, we have observed that Polish speakers often use gestures which far precede verbal negation or that they replace words with nonverbal reactions. Such phenomena with regard to negation expressed by Polish speakers require further investigation.

different discourse contexts where, although, as we shall argue, it can always be interpreted as expressing a 'theme' of negation, it yet comes to have a very different force, depending upon how this theme of negation combines with the other semantic themes that are also being expressed (Kendon 2002: 148). For example, a verbal *no* repeated six times and accompanied by the head shaking, a hand cut gesture, and a break in eye contact signifies negation combined with reluctance and the need to establish an interactive boundary. In one of our examples, the guest of a popular TV show thus responds to the host's encouragement to ask him a question: *I don't know what ...* [repeated snorts, letting out air]. *I don't not know what sort of ... question I could ask you* – this is followed by a number of shoulder shrugs. While saying: *I don't know*, the guest makes a short and energetic head shake, preceded by breaking eye contact. The statement is accompanied by a mimic expression of dislike and a discouraged, slightly impatient tone of voice. Thus, verbal negativity was reinforced by the negative head shaking and five other nonverbal communication channels (facial expressions, intonation, paralinguistic effects, shoulder movements, visual contact). In this example, multimodal negation becomes semantically related with indecision and fatigue.

3.2 Arms spreading apart

The open hand gesture has been widely described by researchers (Bressem & Müller, 2014; Antas, 2013, pp. 234–236; McNeill, 2005, pp. 49–51; Kendon, 2004, pp. 264–281; Załazińska, 2001, pp. 65–80; Morris, 1977, p. 56). Antas notes that an open hand or open hands in questions express mental willingness of the subject to accept new cognitive values (Antas, 2013, p.237, cf. Kendon 2004: 273–275). Meanwhile, while negating, the gesture of open hands turns out to reveal other sensorimotor sources. The essence of this movement is its trajectory: the hands move away from one another.

Arms spreading apart – a very popular gesture expressing negation illustrates different degrees of inability – from impossibility to helplessness (cf. Kendon 2004: 275-281). We have observed the movements of open hands signalling lack of qualities, in line with the metaphor: TO KNOW IS TO POSSESS, and also one indicating the impossibility of manipulation expressed by the dropping and spreading apart of the arms combined with the hand shrug (to emphasise helplessness) (Fig.2). Ekman and Friesen include this gesture in the hand shrug emblems category (1972, p. 366), and Bavelas et al.describes it as an interactive gesture, which could be paraphrased by the words: *What else could I do?* (Bavelas et al., 1992, pp. 472–475).



Figure 2. Arms spreading apart (from the collection of Department of Communication Theory).

In our opinion, an interpretation of the gesture of hands moving away (in different ways depending on different qualities) should also include set phrases. Phraseology is sometimes a mirror of inter-subjective imagery and motor patterns which are inherent in concepts. We say: *rozłożył ręce* (Eng. 'he spread his hands', meaning: 'there was nothing he could do') or stronger *opadły mi ręce* (Eng. 'my arms have dropped down', meaning: 'I was powerless, helpless') but also: *nie poruszaj tego problemu* (Eng. 'don't touch this problem') or *ja się tego nie tykam* (Eng. 'no, I'm not even touching it').



Figure 3. Arms spreading apart (from the collection of the Department of Communication Theory).

The latter meaning may be expressed by the pushing forward of the hands spread apart and pointing upwards, thus indicating not only ignorance, but also unwillingness to take up the subject. By repeating (Fig. 3): *I don't know* twice, the speaker indicates that they have no intention of discussing a particular subject (cf. Kendon, 2004, p. 277).

3.3 Pushing-away gesture

The expression of *doesn't matter* is always accompanied by a pushing-away gesture (Antas, 2013, pp. 225-230, see Bressem & Müller, 2014). Here personified thoughts and ideas are pushed away from the body of the subject – what is irrelevant for the subject should disappear from their field of vision, or at least be pushed aside, as opposed to important concepts that we always wish to present by gesture as objects which we hold and possess (in line with the metaphor: TO HOLD IS TO CONTROL).²

3.4 Hand-cut

It is important to distinguish two patterns of negation: a cut off and a cut with a hand or hands. Antas emphasizes that *the cut-off gesture is always accompanied by a very sharp expression of negation and protest* (Antas 2013: 246, cf. Kendon, 2004, p. 262). The author prefers to regard the movement of the hands, which researchers call *hand scissors* (Morris, 1977, 51), as an act of self-detachment. She refers to the gesture as a baton *which the subject uses to separate themselves from an issue* (Antas 2013, pp. 245–248). On the other hand, the hand-cut gesture may have different variants, but it is always a horizontal and sharp cut (see Kendon, 2004, p. 263). The cutting can be made with one or both hands (Fig.4).



Figure 4. Cut with hands (from the collection of the Department of Communication Theory)

The gesture is probably derived from the original use of primitive tools, such as a scythe, sickle or machete. This has also found its way into popular verbal expressions, such as: *uciąć* 'cut', *wytrzebić* 'to thin out, to geld', *ukrócić czyjeś zapędy* 'to thwart someone's intentions'. There are also examples of similar imagery in the English language: *to shorten*, *stumped for words*, *cut-throat*

² We find in our material the presence of all four types of gestures of the Away family, described extensively in the German language by Bressem & Müller (2014).

(*speed or prices*), *mow (somebody) down*. Firmness and, in a way, ultimate character of negation expressed by a cutting motion often accompanies the terms *nothing* or *everything*.

3.5 Interactive gestures

Interactive gestures may also include a grain of the embodied sense of negation as a relational phenomenon – a phenomenon which arises from and functions in the social contact of a person with the surrounding environment. Such intimately interrelated functions are expressed with the gesture of the outstretched hand holding back any possible objections on the part of the interlocutor – gestures imaging a blockage which Bavelas paraphrases in the words: *Don't interrupt me* (Bavelas et al., 1992, pp.472–476, see Bressem & Müller, 2014, pp.1597–1598, Kendon 2004, pp. 251–255).³

3.6 Wagging of the index finger

Wagging of the index finger indicates that the person wishes to express strong detachment from the subject or even flash a ‘no entry’ sign. It most likely falls into the interactive gestures category, which is confirmed by the simultaneous breaking of the eye contact we observed in the sample group. The wagged finger while maintaining the eye contact carries an even stronger expression of ‘no entry’.

3.7 Proxemic negation

Stepping back can sometimes be considered an interactive gesture. Indeed, a rapid movement away from the interlocutor indicates the need to increase the interactive distance. On the other hand, we should take a closer look at such expressions as: *I've been taken aback at the thought of ...* or *back away from* (something unpleasant or frightening) as opposed to: *become closer to somebody*, *close to somebody's heart*. These phrases suggest the need to express the rejection of an idea with our bodies. In other words, an objectified concept (thought, memory, project, idea) can evoke the feeling of physical rejection. In the following examples, the individuals expressing proxemic negation refer more clearly to a certain idea than to the interlocutor themselves or their attitude. An actress is “taken aback” by a reference made by the host, on another occasion, the host is “dumbstruck” by a story related by the guest which made him pull back in his chair (in response to the repulsive image in his mind which the story evoked).

3.8 Mimic “no”

Mimics uniquely reflect affective attitudes. The mimic “no” expresses disgust and aversion. This nonverbal reaction is often accompanied by the prototypal head shaking. While the simultaneous occurrence of verbal and mimic negation is quite common, we have also encountered situations in which facial expressions far precede verbal negation. According to Ekman, the timing and length of a mimic expression determines whether it is a *facial expression of emotions* or a *referential expression of emotions* (Ekman, 1997, p. 340). Nevertheless, we regard most of the mimic expressions in the analysed cases as *conversational facial gestures* (Bavelas et al., 2014, pp. 10-16) and deal with them in relation to a *particular microsocial moment* (Bavelas et al., 2014, p. 2). For example, an interviewed actor says: *No life without acting*, and at the same time wrinkles his face and squints his eyes, thus expressing distaste for the prospect of life devoid of acting. He also opens his arms and shrugs his shoulders. Thus, negation once again occurs with the use of several simultaneous means.

³ In his research, Harrison accurately regards this type of reactions as illustrations of meanings created simultaneously on the interaction axis and the modality axis (2015). In our material base, we do not have enough examples so far to verify Harrison's thesis for gestures which accompany verbal statements in Polish.

3.9. Negation of a predicate

A situation in which a verbal negation is accompanied by a gesture illustrating an undeniable predicate, is a separate issue. For example, a recognized-music critic says: *We don't have much ...*, while lifting both hands, as if he were holding a large ball. The gesture indicating a large quantity is verbally negated.



Figure 5. *Things that don't literally touch me directly* (from the collection of the Department of Communication Theory)

Similarly, an actress says: *Things that don't literally touch me directly* while curling the fingers of both hands and putting them together in front of her chest (which carries the opposite meaning to: *They touch me directly*) (Fig.5). As Antas says: *This kind of behaviour is confirmed by Wygotski's thesis on the absolute predicativity of the inner speech, and the thesis of Hostetter and Alibali on the so-called threshold of gesture* (Antas 2013, pp. 223–224). Or elsewhere: *[Hostetter and Alibali] suppose that gesture takes the form closest to the nature of simulation carried out in the mind* (Antas, 2013, p.159). In other words, gestures always express areas which the speaker finds most important and most prominently profiled. If the subject identifies themselves, emotionally, and thus sensually, with negation, then their body also expresses negation. If negation occurs at a purely logical level (IT IS NOT TRUE THAT), then it is not present in the gesture. In this case, the body serves to express a non-negated mental image, which does not “yield” to logical negation. Thus, predicative gestures indicate that negation can be a logical operation based on affirmation. But there is a difference between a logical “no” and a pragmatic one. The latter is subjective and it is not just a logical construct. The pragmatic “no” is emotionally linked with the subject. We hope that we have succeeded in showing the qualities it expresses.

4 Conclusions

We have observed that different gestures appear in different spheres of expressing negation. The open hands and spread arms occur in the sphere of beliefs, and consequently within the associated epistemic modality, accompanying such expressions as: *nie wiem* ‘I don't know’, *wątpię* ‘I doubt’, *nie da się* ‘no way’, *nie ma* ‘there is no...’ etc. Rejection expressed by pushing the hands away from the body is the commonest in the area of evaluation (*nieważne* ‘doesn't matter’). Also in the area of evaluation (*źle* ‘wrong’, *okropne* ‘awful’, etc.) and emotions (*nie chcę* ‘I don't want’, and any signs of disgust, embarrassment, and even surprise) we can observe the gestures of moving away (the proxemic “no”), and even more importantly the mimic negation. The popular hand-cut gesture belongs primarily in the sphere of action and the strongly related deontic modality. On the other hand, head shaking – the most prototypal of all forms of negation, occurs in all areas and all kinds of emotions, sometimes even carries intrapersonal qualities. Predicative gestures occurring with logical negatives simply illustrate concepts that are contradictory and do not say anything about the bodily source of negation. NOT as a concept may appear simultaneously in one or more communication channels (it can also be expressed in an exclusively non-verbal manner), while the logical operator IT IS NOT TRUE THAT appears only in a verbal form. Conversely, a verbal negation accompanied by the above bodily expressions may appear in the form of various textual operators (Antas, 1991). The above analysis, focusing on the communicative behaviours of Poles,

does not exhaust the subject matter of bodily expression of negation, but was intended to indicate the main sensorimotor sources of this heterogeneous phenomenon and to designate further research fields in Polish.

References

- Antas, J. (1991). *O mechanizmach negowania. Wybrane semantyczne i pragmatyczne aspekty negacji*. Kraków: Universitas.
- Antas, J. (2013). *Semantyczność ciała. Gesty jako znaki myślenia*. Łódź: Primum Verbum.
- Bavelas, B.-J., Gerwing, J., & Healing, S. (2014). Hand and Facial Gestures in Conversational Interaction. In T.-M. Holtgrave (Ed.), *The Oxford Handbook of Language and Social Psychology*
DOI: 10.1093/oxfordhb/9780199838639.013.008
- Bavelas, B.-J., Chovil, N., Lawrie, D.-A., & Wade, A. (1992). Interactive Gestures. *Discourse Processes*, 15, 469–489.
- Bressem, J., & Müller, C., (2014). The family of Away gestures: Negation, refusal, and negative assessment. In C. Müller, A. Cienki, E. Fricke, S. H. Ladewig, D. McNeill, & J. Bressem (Eds.), *Body – Language – Communication. An International Handbook on Multimodality in Human Interaction (Handbooks of Linguistics and Communication Science 38.2.)* (pp.1592–1604). Berlin-Boston: De Gruyter Mouton.
- Ekman, P. (1997). Should we call it expression or communication? *Innovation*, 10(4), 333–344.
- Ekman, P., Friesen, W.-V. (1972). Hand Movements. *The Journal of Communication*, 22 (4), 353–374.
- Harrison, S., & Larrivée, P. (2016). Morphosyntactic correlates of gestures: A gesture associated with negation in French and its organisation with speech. In P. Larrivée & Ch. Lee (Eds.), *Negation and polarity. Experimental perspectives* (pp.75-94). Dordrecht: Springer.
- Harrison, S. (2015). A modality axis in gesture space? The Vertical Palm and construal of negation as distance. In F. Galle, & M. Tutton (Eds.), *Gesture and Speech in Interaction - 4th edition (GESPIN 4)*. (pp.137–141). Nantes: Hall.
- Kendon, A. (2002). Some uses of the head shake, *Gesture* 2(2) , 147–182.
- Kendon, A. (2004). *Gesture: Visible Action as Utterance*. Cambridge: Cambridge University Press.
- McNeill, D. (2005). *Gesture and Thought*. Chicago/London: University of Chicago Press.
- Morris, D. (1977). *Manwatching: A field-guide to human behavior*. London: Jonathan Cape.
- Tanner, J-E., Patterson, F.-G., Byrne, R.-W. (2006). The development of spontaneous gestures in zoo-living gorillas and sign-taught gorillas, <https://www.researchgate.net/publication/237516373> (26.03.2017), pp. 69-102.
- Załaźnińska, A. (2001) *Schematy myśli wyrażane w gestach. Gesty metaforyczne obrazujące abstrakcyjne relacje i zasoby podmiotu mówiącego*. Kraków: Universitas.
- Żurowski, S. (2005). Negacja jako element MSN. *Polonistyka* 2004/2005., 249-256.